

DO NOT ENTER: *W.C.J.* (01/31/2011)

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

1.-55. (Canceled).

56. (Currently Amended) A membrane penetrating non-hypodermic needle for repeatedly penetrating a membrane, having a pointed end provided with a penetrating tip and with an opening for letting a liquid in and/or out in a main direction which is substantially parallel to the longitudinal extension of the needle, wherein the penetrating tip is designed with a point to initially prick a membrane when the membrane is penetrated and that the outer edges present on the pointed end in the area from the point to a position beyond the opening are rounded so that after the initial penetration the pointed end will push the membrane material away rather than cutting the membrane material; and wherein the point is arranged to lie substantially on a longitudinal centre line of the needle when viewed along the longitudinal centre line of the needle.

57. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 56, wherein the inner edge of the opening is rounded.

58. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 56, wherein the penetrating tip is designed with a cross section having a symmetry causing at least three substantially equally sized forces (F) in different directions which are radial to the longitudinal centre line of the needle and which forces counteract each other so that the needle will tend not to deviate from the initial penetration direction when the needle penetrates a membrane.

59. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the cross section is substantially triangular with rounded edges.

60. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the cross section is substantially circular.

61. (Cancelled)

62. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 56, wherein the pointed end has a shape substantially corresponding to a part of an imaginary cone, the tip of which coincides with the point.

63. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 56, wherein the opening is arranged on one and the same half of a cross section of the needle.

64. (Currently Amended) A membrane penetrating non-hypodermic needle according to claims 56, wherein the pointed end is provided with a basic shape in accordance with a lancet bevel cut.

65. (Currently Amended) A membrane penetrating non-hypodermic needle according to claims 56, wherein the pointed end is provided with a basic shape in accordance with a back bevel cut.

66. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 65, wherein the back bevel cut has a tip angle ( $\alpha$ ) in the interval  $20^\circ$  to  $50^\circ$ .

67. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 65, wherein the back bevel cut has a tip angle ( $\alpha$ ) in the interval  $50^\circ$  to  $100^\circ$ .

68. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 65, wherein the back bevel cut has a tip angle ( $\alpha$ ) in the interval 30° to 80°.

69. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 68, wherein the tip angle ( $\alpha$ ) is approximately 75°.

70. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 65, wherein the back bevel cut has a second grind angle ( $\beta$ ) in the interval 50° to 140°.

71. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 70, wherein the second grind angle ( $\beta$ ) is approximately 100°.

72. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 56, wherein the needle is provided with a tip angle ( $\alpha$ ) in the interval 20° to 100°.

73. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 72, wherein the tip angle ( $\alpha$ ) is in the interval 30° to 80°.

74. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 56, wherein the needle is provided with a rear angle ( $\beta$ ) in the interval 50° to 140°.

75. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 74, wherein the rear angle ( $\beta$ ) is approximately 100°.

76. (Currently Amended) A membrane penetrating non-hypodermic needle for repeatedly penetrating a membrane, said needle having a pointed end provided with a penetrating tip and with an opening for letting a liquid in and/or out in a main direction which is substantially parallel to the longitudinal extension of the needle, wherein the point of the penetrating tip is arranged to lie substantially on the longitudinal centre line of the needle when viewed along the

longitudinal centre line of the needle, and the penetrating tip is designed with a cross section having a symmetry causing at least three substantially equally sized forces (F) in different directions which are radial to the longitudinal centre line of the needle and which forces counteract each other so that the needle will tend not to deviate from the initial penetration direction when the needle penetrates a membrane.

77. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 76, wherein the cross section is substantially triangular with rounded corners.

78. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 76, wherein the cross section is substantially circular.

79. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the point of the penetrating tip is arranged to lie substantially on the longitudinal centre line of the needle.

80. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the pointed end has a shape substantially corresponding to a part of an imaginary cone, the tip of which coincides with the point.

81. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 61, wherein the pointed end has a shape substantially corresponding to a part of an imaginary cone, the tip of which coincides with the point.

82. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the opening is arranged on one and the same half of a cross section of the needle.

83. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the pointed end is provided with a basic shape in accordance with a lancet bevel cut.

84. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the pointed end is provided with a basic shape in accordance with a back bevel cut.

85. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 69, wherein the back bevel cut has a second grind angle ( $\beta$ ) in the interval  $50^\circ$  to  $140^\circ$ .

86. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the needle is provided with a tip angle ( $\alpha$ ) in the interval  $20^\circ$  to  $100^\circ$ .

87. (Currently Amended) A membrane penetrating non-hypodermic needle according to claim 58, wherein the needle is provided with a rear angle ( $\beta$ ) in the interval  $50^\circ$  to  $140^\circ$ .

88. (Withdrawn, Currently Amended) A method for manufacturing a membrane penetrating non-hypodermic needle for repeatedly penetrating a membrane, comprising: (a) cutting a tubular blank obliquely for obtaining a pointed end provided with a penetrating tip and with an opening for letting a liquid in and/or out in a main direction which is substantially parallel to the longitudinal extension of the needle, wherein the penetrating tip comprises a point arranged to lie substantially on the longitudinal centre line of the needle when viewed along the longitudinal centre line of the needle, and (b) rounding all outer edges present on the pointed end in the area between the point-shaped edge and a position beyond the opening.

89. (Withdrawn) A method according to claim 88, characterized by rounding the inner edge of the opening.

90. (Withdrawn) A method according to claim 88 or 89, characterized by shaping the penetrating tip with a cross section having a symmetry causing at least three substantially equally sized forces (F) in different directions which are radial to the longitudinal centre line of the needle and which forces counteract each other so that the needle will tend not to deviate from the initial penetration direction when the needle penetrates a membrane.

91. (Withdrawn) A method according to claim 88 or 89, characterized by arranging the point-shaped edge of the penetrating tip to lie substantially on the longitudinal centre line of the needle.

92. (Withdrawn) A method according to any of claims 88 or 89, characterized by shaping the pointed end as a part of an imaginary cone, the tip of which coincides with the substantially point-shaped edge.

93. (Withdrawn) A method according to any of claims 88 or 89, characterized by shaping the pointed end so that at least a major part of the opening will be located on one and the same half of the cross section of the needle.

94. (Withdrawn) A method according to any of claims 88 or 89, characterized by grinding the penetrating tip in accordance with a lancet bevel cut before rounding the outer edges of the pointed end.

95. (Withdrawn) A method according to any of claims 88 or 89, characterized by grinding the penetrating tip in accordance with a back bevel cut before rounding the outer edges of the pointed end.

96. (Withdrawn) A method according to any of claims 88 or 89, characterized by shaping the penetrating tip by a non-cutting process.

97. (Withdrawn) A method according to any of claims 88 or 89, characterized by rounding the outer edges by blasting and/or electrochemical polishing.

98. (Withdrawn) A method according to claim 89, characterized by rounding the inner edge of the opening by blasting and/or electrochemical polishing.

99. (Withdrawn) A method according to claim 90, characterized by arranging the point-shaped edge of the penetrating tip to lie substantially on the longitudinal centre line of the needle.

100. (Withdrawn) A method according to claim 90, characterized by shaping the pointed end as a part of an imaginary cone, the tip of which coincides with the substantially point-shaped edge.

101. (Withdrawn) A method according to claim 90, characterized by shaping the pointed end so that at least a major part of the opening will be located on one and the same half of the cross section of the needle.

102. (Withdrawn) A method according to claim 90, characterized by grinding the penetrating tip in accordance with a lancet bevel cut before rounding the outer edges of the pointed end.

103. (Withdrawn) A method according to claim 90, characterized by grinding the penetrating tip in accordance with a back bevel cut before rounding the outer edges of the pointed end.

104. (Withdrawn) A method according to claim 90, characterized by shaping the penetrating tip by a non-cutting process.

105. (Withdrawn) A method according to claim 104, wherein said non-cutting process comprises forging or hammering.

106. (Withdrawn) A method according to claim 90, characterized by rounding the outer edges by blasting and/or electrochemical polishing.